

**REMARKS**

**I. Status of the claims**

After entering this amendment, claims 7, 11-19, 33, 35, 142, and 155-162 will be pending in this application. Claims 13-19, 142, and 156 have been amended. New claims 159-162 have been added.

Claims 13 and 157 were amended by deleting the step regarding discretely allocating the characteristic peaks. Such step is now claimed in new claim 159 as a method further comprising classifying the characteristic peaks. Support for this amendment can be found, for example, in paragraph [086] of the specification.

Claim 14 was amended by deleting the qualifier "detected" in front of "characteristic peaks" addressing the Office's objection. Claims 15-19 were amended to be consistent with the amendment to claim 14. The scope of these claims was not narrowed by the amendments. Support for these amendments is present in original claims 14-19.

Claim 142 was amended by reciting a step for detecting the characteristic peaks of the first, second, and third, diffraction patterns. One of ordinary skill in the art would recognize that the order of the steps in claim 142 is not necessarily sequential and that the steps can be performed in a different order than the one recited without affecting the result of the method. For example, detecting the characteristic peaks of the first diffraction pattern can be performed before receiving the second diffraction pattern, etc. Claim 142 was also amended to recite the step of displaying the relationship among the received diffraction patterns. Support for the amendments to claim 142 can be found,

for example, in paragraph [0104] of the specification. Claim 156 was amended in an analogous manner to the amendments of claim 142.

New claim 159 is directed to classifying characteristic peaks. Support for this amendment can be found, for example, at paragraph [086] of the specification. New claim 160 is directed to a method of analyzing patterns. Support for this amendment can be found, for example, in original claims 13 and 142, and at paragraph [0104]. New claims 161 and 162 are directed to displaying the results of the method as a dendrogram. Support for these new claims can be found, for example, in paragraph [0104].

**II. Statement on Substance of Interview under 37 C.F.R. § 1.133(b)**

Applicants thank Examiner Allen C. Ho for the interview of April 18, 2007. At the interview, the Examiner agreed that the amendments proposed therein would overcome all of the objections and rejections of record. The instant amendments comprise the amendments discussed at the interview. The Examiner further indicated that a new search would be required in view of the proposed amendments.

**III. Objections to the claims**

The Office objected to claim 14 alleging that the phrase "detected characteristic peaks" lacked antecedent basis. Applicants amended claim 14 by deleting the term "detected." The claim is now directed to "characteristic peaks," which is recited in claim 142, from which claim 14 depends. Accordingly, this objection is now moot and Applicants respectfully request that the objection be withdrawn.

#### **IV. Rejections under 35 U.S.C. § 101**

The Office rejected claims 7, 11-19, 33, 35, 142, and 155-158 under 35 U.S.C. § 101 for allegedly failing to recite a tangible result. During the interview, Applicants explained that a tangible result from practicing the invention can be the display of the relationship among the received diffraction patterns. For example, in one embodiment, such a display can be a dendrogram. Applicants have amended claims 142 and 156 to be consistent with the amendments discussed at the interview. New independent claim 160 is also consistent with these amendments. New dependent claims 161 and 162 are directed to methods wherein the tangible result is a dendrogram. Accordingly, the claims comply with 35 U.S.C. § 101 and Applicants respectfully request that this rejection be withdrawn.

#### **V. Rejections under 35 U.S.C. § 102**

The Office rejected claims 11, 12, 142, and 156 under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Application Publication No. 2006/0015265 A1 ("*Raich*"). Applicants amended claims 142 and 156 to explicitly recite the previously-implicit step of determining the characteristic peaks. Also, the instant methods recite the determination of similarities between diffraction patterns based on characteristic peaks. *Raich* does not determine the characteristic peaks of diffraction patterns nor does it teach the determination of similarities between diffraction patterns based on characteristic peaks. See, e.g., *Raich* at ¶ [026]. For at least these reasons, *Raich* does not meet all of the limitations of the claimed invention and Applicants respectfully request that this rejection be withdrawn.

**VI. Rejections under 35 U.S.C. § 103**

The Office rejected claims 33 and 155 under 35 U.S.C. § 103 as allegedly unpatentable over *Raich*. The Office argued that it would have been obvious to x-shift the diffraction patterns. Applicants respectfully disagree. However, given that *Raich* nevertheless fails to meet at least one other limitation of the instant claims, *Raich* does not render obvious the instant invention. Accordingly, Applicants respectfully request that this rejection be withdrawn.

**VII. Conclusions**

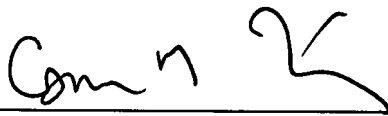
In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account No. 06-0916.

Respectfully submitted,

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By:   
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